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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,618	01/14/2005	Kaoru Someya	05014/LH	2629

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220 Fifth Avenue
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NEW YORK, NY 10001-7708

EXAMINER

CHAN, RICHARD

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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06/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,618

Applicant(s)

SOMEYA, KAORU

Examiner

Richard Chan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/12/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bazarjani (US 6,005,506).

With respect to claim 14, Bazarjani discloses a radio wave reception device 2200 comprising: a radio wave reception unit 2200 which is capable of receiving arbitrary radio wave signals through antenna 2212 having different frequencies, and which converts a received arbitrary radio wave signal into an electric signal and outputs the electric signal; a frequency conversion unit 2220 which synthesizes the electric signal output from the radio wave reception, and a detection unit 2124, 2140, and 2240 combined which demodulates the signal having the intermediate frequency f_i output from the frequency conversion unit, however the Bazarjani reference does not specifically disclose an oscillation unit 2220 which includes a frequency determining section which determines a frequency f_0 in accordance with an equation: $(|f_l \pm f_l/p_l|) = \dots = (|f_n \pm f_l/p_n|) = f_0$ where p_l, \dots, p_n are positive integers and n is an integer equal to or greater than 2, and wherein the equation defines a relationship between the respective

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frequencies f_1, \dots, f_n of the arbitrary radio wave signals receivable by the radio wave reception unit and an intermediate frequency f_i , and wherein the oscillation unit outputs a signal having the frequency f_0 ; a multiplying unit which multiplies the signal having the frequency f_0 output from the oscillation unit.

The Smith reference however discloses in Fig.10 (Col.15 line 11-57) wherein a frequency determining section which determines a frequency f_0 in accordance with an equation: $(|f_1 \pm f_i|/p_1) = \dots = (|f_n \pm f_i|/p_n) = f_0$ where p_1, \dots, p_n are positive integers and n is an integer equal to or greater than 2, (Col.15 line 58-67) and wherein the equation defines a relationship between the respective frequencies f_1, \dots, f_n (Smith discloses frequencies as f_1 and f_2) of the arbitrary radio wave signals receivable by the radio wave reception unit and an intermediate frequency f_i , and wherein the oscillation unit outputs a signal having the frequency f_0 ; a multiplying unit 405 which multiplies the signal having the frequency f_0 output from the oscillation unit;

It would have been obvious to one of ordinary skill in the art to implement a multi-band, multimodal system as disclosed by Smith to the radio wave reception unit as disclosed by Bazarjani in order for the radio reception to operate within multiple frequencies.

With respect to claim 15, Bazarjani and Smith combined disclose wherein the radio wave reception device according to claim 14, further comprising a selection unit (507 and 509) which selects an integer from the positive integers p_1 to p_n (Col.15 line

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58-67), wherein the multiplying unit 502 multiplies the signal having the frequency f_0 output from the oscillation unit by the integer selected by the selection unit.

With respect to claim 16, Bazarjani discloses the radio wave reception device comprising: a radio wave reception unit 2200 which is capable of receiving arbitrary radio waves having different frequencies through antenna 2212, and which outputs a received arbitrary radio wave by converting the received arbitrary radio wave into an electric signal; a frequency conversion unit 2220 which synthesizes the electric signal output from the radio wave reception unit 2200 with a harmonic component of the signal having the frequency f_0 output from the oscillation unit 2222, and outputs the signal having the intermediate frequency f_i through mixer 2220; and a detection unit 2124, 2140, and 2240 combined which demodulates the signal having the intermediate frequency f_i output from the frequency conversion unit 2220, however the Bazarjani reference does not specifically disclose an oscillation unit which outputs a signal having a frequency f_0 which is obtained from an equation: $(|f_l \pm f_i|/p_l) = \dots = (|f_n \pm f_i|/p_n) = f_0$ where p_l, \dots, p_n are positive integers and n is an integer equal to or greater than 2, and wherein the equation defines a relationship between the respective frequencies f_l, \dots, f_n of the arbitrary radio waves receivable by the radio wave reception unit and an intermediate frequency f_i ;

The Smith reference however discloses in Fig.10 (Col.15 line 11-57) wherein a frequency determining section which determines a frequency f_0 in accordance with an equation: $(|f_l \pm f_i|/p_l) = \dots = (|f_n \pm f_i|/p_n) = f_0$ where p_l, \dots, p_n are positive integers and n is

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an integer equal to or greater than 2, (Col.15 line 58-67)and wherein the equation defines a relationship between the respective frequencies f_1, \dots, f_n (Smith discloses frequencies as f_1 and f_2) of the arbitrary radio wave signals receivable by the radio wave reception unit and an intermediate frequency f_i , and wherein the oscillation unit outputs a signal having the frequency f_0 ; a multiplying unit 405 which multiplies the signal having the frequency f_0 output from the oscillation unit;

It would have been obvious to one of ordinary skill in the art to implement a multi-band, multimodal system as disclosed by Smith to the radio wave reception unit as disclosed by Bazarjani in order for the radio reception to operate within multiple frequencies.

With respect to claim 17, A radio wave clock comprising a radio wave reception device, wherein the radio wave reception device includes: a radio wave reception unit 2200 which is capable of receiving arbitrary radio waves through antenna 2212 that contain time data and that have different frequencies, wherein the radio wave reception unit 2200 outputs a received arbitrary radio wave by converting the received arbitrary radio wave into an electric signal; a frequency conversion unit 2220 which synthesizes the electric signal output from the radio wave reception unit with a harmonic component of the signal having the frequency f_0 output from the oscillation unit 2222, and outputs the signal having the intermediate frequency f_i ; and a detection unit 2124, 2140, and 2240 combined which demodulates the signal having the intermediate frequency f_i output from the frequency conversion unit, however the Bazarjani reference does not

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specifically disclose an oscillation unit which outputs a signal having a frequency f_0 which is obtained from an equation: $(|f_l \pm f_i|/p_l) = \dots = (|f_n \pm f_i|/p_n) = f_0$ where p_l, \dots, p_n are positive integers and n is an integer equal to or greater than 2, and wherein the equation defines a relationship between the respective frequencies f_l, \dots, f_n of the arbitrary radio waves receivable by the radio wave reception unit and an intermediate frequency f_i ;

The Smith reference however discloses in Fig.10 (Col.15 line 11-57) wherein a frequency determining section which determines a frequency f_0 in accordance with an equation: $(|f_l \pm f_i|/p_l) = \dots = (|f_n \pm f_i|/p_n) = f_0$ where p_l, \dots, p_n are positive integers and n is an integer equal to or greater than 2, (Col.15 line 58-67) and wherein the equation defines a relationship between the respective frequencies f_l, \dots, f_n (Smith discloses frequencies as f_1 and f_2) of the arbitrary radio wave signals receivable by the radio wave reception unit and an intermediate frequency f_i , and wherein the oscillation unit outputs a signal having the frequency f_0 ; a multiplying unit 405 which multiplies the signal having the frequency f_0 output from the oscillation unit;

It would have been obvious to one of ordinary skill in the art to implement a multi-band, multimodal system as disclosed by Smith to the radio wave reception unit as disclosed by Bazarjani in order for the radio reception to operate within multiple frequencies.

Conclusion

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3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chan whose telephone number is (571) 272-0570. The examiner can normally be reached on Mon - Fri (9AM - 5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Richard Chan
Art Division 2618
5/25/07


NAY MAUNG
SUPERVISORY PATENT EXAMINER